



Leadership in the Knowledge Era: Some Notes and Thoughts

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We have two phrases married together in this title: “leadership” and the “knowledge era.” Each one has a very extensive literature and many expositions, prescriptions, causation theories, and explanations. Amazon lists over 60,000 titles on leadership in all of its myriad forms, and it is difficult to even account for all the words expended on describing the knowledge age or era or all the other words that seek to define our time.

We are unquestionably living in a knowledge-intensive age. The organizations with the largest stock portfolios (Amazon, Google, Facebook, Apple) are organized and made of knowledge in all its forms and methods. The most effective organizations are substantially different than traditional firms. Their work practices substantially differ, while their structures are far removed from hierarchical, control-oriented entities. This has profound impact on leadership.

Knowledge organizations are different because knowledge is different. It relies on a socially adaptive, conversation-intensive, federated structure that promotes autonomy and sharing. In most respects, in its most successful forms, it can argue with the question of whether leadership is a value or limitation -- notice the increased growth of agile, scrum, team-oriented models that raise the question of management value.

For this short discussion paper, we would like to emphasize the knowledge age as an economic situation where knowledge itself is either the end product or is an essential intermediate product for many organizations. And leadership in this world resides mainly in the acts of facilitation, convening, persuading, and advocating knowledge.

What we are trying to do here, is offer some thoughts on these subjects that hopefully are not too banal or common, while still retaining use for managers and executives who want to lead using knowledge, broadly defined, as their major tool, and perhaps are open to some new ideas on this subject.

There is no doubt in our minds that the great advances made by AI and its applications have focused attention on what humans and machines know, can know, or what they know working together. Along with this technological advance, is the realization of the sheer value of ideas in all our organized lives, as witnessed by the recent Noble Economic Prize to Paul Romer for his groundbreaking work in this area. Ideas have replaced land, labor and capital as the most critical and valuable resource of most organizations and leaders must understand this to move ahead.

Inclusive Leadership

An essential aspect of the knowledge age is the importance of leadership. We recognize that culture eats strategy for breakfast. Leadership has the power to create culture. The essential ingredient of any change or project is executive sponsorship. Fundamentally, leadership actively provides the direction and commitment. Knowledge is shared and created in environments that are diverse and inclusive. It cannot thrive in spaces that are closed, fearful, and low conversation. As a starting point, it is essential to directly connect any idea or knowledge source with leadership value. An often-overlooked factor, is the need to start with the leadership value in mind for any initiative or change.

The most effective leaders have a deep respect for local knowledge. They ensure decision-making happens at the local level, since the most qualified are those who work closest on the task. In a project management environment, it is typical that “trade studies” are conducted by teams of experts with discipline knowledge and connection to the needs of the local community. Systems engineering is such a critical capability because it represents an awareness of the larger system and the integration needed to ensure knowledge is identified, flows, and constantly responds to real needs. It is not the processes that define a project; it is the inclusive and open exchange of knowledge that defines project work.

Epistemic Humility

The management model of the past one hundred years is under attack. First, there is a significant cost to management. Leadership positions add costs of salary, power, time, and additional perks. In an era of better, faster, cheaper, such position overhead runs counter to the demands for agility and low cost. A second factor in the loss of management prerogative is the tendency for leadership positions to constrain ideas, speed, and adaptability. A third factor is the growth of teams. Team designs encourage flexibility, low cost, speed, and innovation. They also provide value to a younger workforce preferring a more informal, autonomous style.

One of the agreed hallmarks of the knowledge age is the astounding growth of all kinds of knowledge, generated by millions of new practitioners and researchers throughout the world. They now have the technology and the institutions to bring their work forward to the world’s attention. This ongoing democratization of knowledge is truly well underway and its consequences are being played out on the global stage. Today, more people know more things in more countries than at any time in our global history, and this knowledge is being applied and used in ways that are fundamentally altering our economic, social and political lives.

So, what does this mean for leaders? One major lesson is that it is impossible for any individual or organization to know enough on his or her own to act with certainty in the current global economy. The environment we all live in is just too complex, and useful knowledge is too readily available in many ways and in many places, for any person or organization to feel sure that they have the optimal knowledge they need for major decisions. For practically any organization, just keeping up with new innovations is very difficult. Organizations that we have worked with, including NASA, CIA, the World Bank, the United Nations, and many consulting firms, corporations and government agencies, all face rapidly growing and changing knowledge.

They used to operate on the principle that they had access to all of the knowledge they needed to do the best job they could. None of these organizations would make such a claim today, and neither would any organization with even a glimmer of understanding of global knowledge systems.

Therefore, leaders have to reach out by themselves or by setting up units to find and bring into the organization new ideas that are circulating all around us. This is more than attending conferences once a year (though that isn't a bad idea), or reading a journal or two (also worth doing), but actively building or joining networks outside of the organization for the express purpose of knowledge development and exchange. This is in addition to talking regularly with those people who keep up in areas you aren't able to. Scaling your networks this way is an invaluable tool.

Another equally important activity is to seek and actively use the local knowledge of your colleagues, customers and friends of the firm, and discuss and circulate such ideas that seem potentially valuable. The old idea of a suggestion box wasn't really a bad one...though few employees ever got recognized for their efforts. Especially in large organizations, much knowledge that could be very useful is already present somewhere within the organization and the mechanisms to find these ideas and individuals is already known.

Perhaps what is most important in the final analysis, is for leaders at all levels to spread the notion that ideas and knowledge are essential to any organization's success, and that all employees can contribute to the identification and discussion of these ideas. These efforts need to be recognized for what they are: the lifeblood of any successful organization.

Signs and Symbols

A while ago, the CEO of a major bank in Brazil spent an hour every morning discussing with any and all employees of the bank, what was happening that day at the bank and in the world. Almost all employees listened in, sometimes for a short time, often longer, and a firm wide discussion therefore took place. Bill Gates did a very similar thing when he was an active CEO at Microsoft, and other organizations have tried similar efforts. This was a wonderful activity for several reasons; it both symbolized and signaled that conversations are the lifeblood of knowledge exchange and that everyone can bring value to a conversation. This is no small matter for leaders at every level in an organization. It provides legitimization for informal talking and discussion, as well as emphasizing its value at the highest level of the firm.

Another key symbol that is in the hands of leaders at every level is choosing employees to work for the organization and promoting employees. It has been said that the qualities observed of promoted individuals are the strongest signal employees ever get as to what specific qualities the organization is valuing. Promoting or hiring self-serving, opportunistic, non-collaborative people is one of the worst things one can do in an age where collaboration is a key behavior for organizational success.

We once worked for a major executive recruitment firm that refused to hire a very successful recruiter because he was a "lone gun" and while bringing in many important clients, the signal

sent by his hiring would, in the long-run, destroy much of the culture they had built up focusing on teamwork and collaboration.

Even small gestures can send important signals. Our colleague, Tom Davenport, once wrote a book on re-engineering that created a very strong stream of work for his employer at the time, Ernst and Young. Although Tom was well compensated, he never heard from the management of the firm on his outstanding contribution. When a new Director came in a year later, he sent a short handwritten complimentary note to Tom who greatly appreciated it. It made significant difference to him.

Some organizations institutionalize signals such as this, giving awards for intellectual contributions and rewarding them -- not so much by material sources, but by recognition. Another aspect of these types of activities is “being there,” from having lunch with your employees (as is quite common in Scandinavian firms); to management by walking around; to periodic “Q&A” sessions. It all counts in many ways, especially for employee retention, satisfaction and valuation. When IBM bought Lotus, Larry moved into the Lotus building soon after the sale. The employees were quite excited by this sale, thinking they would be moving from a small software operation to becoming an integral part of a massive high tech giant. However, the IBM CEO never visited the firm or even did a video showing his excitement and giving a message about where the firm was heading. This proved to be a great disappointment. He sent around notices, but this was no substitution for being there. After a few years, very few of the most valued employees remained and Lotus never achieved its expectations due to many factors, including the CEO apparent disinterest.

Creating and Broadcasting Stories

Jack Welch, the formidable, one-time CEO of General Electric told Chris Bartlett, one of his most trusted advisors, that his most useful skill as CEO came to him through genetics, noting that he was Irish, and the Irish “are all great storytellers.”

Maybe one doesn't have to be Irish to tell good stories, but it surely is a highly valued tool for anyone desiring to be a thought leader. Just think of the speeches that Churchill and FDR gave during the Second World War. They used a series of narrative metaphors to inspire the populations to be brave and not despair. The stories we tell give meaning both to our personal lives, and they are used to help others understand both complex and simple things in a more intuitive way than any other means of communication. Evolution has seen to it that they are much more suited as tools to whom we are as a species.

Ed Hoffman, as Chief Knowledge Officer of NASA, decided to use stories at NASA events to help innovative employees explain what they had created and how they managed to do what they did. Before Ed embarked on this course, the NASA presentations were pretty dry and PowerPoint-centric -- not the sort of thing to have someone jump from their seat, inspired to use a new technology or process. The results after this change were far more electrifying and there was strong competition to attend the various forums where stories were used. This went against many models taught in engineering and business schools, but it was far more effective in practice.

Leaders create meaning, whether they intend to or not. The words and actions they say and enact, convey intention and experience far beyond the mere functionality of the specific words. Stories can convey a universe of meaning in a small package—think of a great poem or hymn or maybe even an equation. Many executives tell stories of possible futures and they do it with enough passion, conviction and enthusiasm that sometimes the story they tell actually comes to pass.

Knowledge Spaces

Another neglected aspect of what leaders do is to create spaces: physical spaces, social spaces, cyber spaces, psychic spaces and whatever space exists, where common meaning can be developed. The Japanese have a somewhat untranslatable word, *Baa*, that is used by their knowledge theorists and many of us too, that means something like what we are talking about.

Ecopetrol in Bogotá, Colombia, created such spaces for this kind of activity to use every quarter. The physical space was conducive to discussions, fueled by excellent coffee, and the day was lightly filled with presentations, but mostly it was used for attendees to converse and move about and then proceed to tell the whole group what they had been talking about.

A few decades ago the pharmaceutical giant, Novartis, decided to rip down their 14-year or so old-fashioned buildings in Basle, Switzerland, and put up new buildings based on “Knowledge Principles.” What this meant was that almost every floor and unit was designed to have several appealing spaces (many with espresso machines and biscotti in them), where employees were given the signal to stop and chat with whomever was there. The key word used here was “serendipitous encounters,” and the theory was that if people talked about what they were working on with others in some regular way on a random basis, good conversations and surprising things were likely to occur.

In recent years, Siemens designed their new headquarters to “encourage encounters,” according to their CEO. A walk around the campus-style office, leads to movement through and around gardens and nature—a deliberate design to spark discussion, ideas, and exchange.

Another important use of space is the physical location where organizations choose to base their workers. Again, let me mention Novartis, who about 12 years ago was searching for a place to base their global R&D unit in North America. Needless to say, many places made bids to have this organization located in their cities.

Ultimately, Novartis picked Cambridge, MA, which offered no tax relief at all and in addition, has very expensive real estate. The chosen spot was equidistant between Harvard and MIT, and when asked by their board to explain this seemingly profligate decision, they quoted Alfred Marshall, a late Victorian economist. Marshall wrote about why firms in similar industries cluster together in the same neighborhoods (think Silicon Valley), and speculated that they liked to be in places where “knowledge is in the air.” People met and talked and changed jobs locally, and while individual firms may lose, the mass of firms and the whole industry benefits from the collective knowledge circulating. There are over 200 genomic medicine firms in Cambridge, MA, and Novartis knew well what they were doing.

Even if you are leading a small unit of eight employees, you can always find ways to increase the spaces available where knowledge can be developed, discussed, moved about and used.

Learning

Recent studies from PMI, World Economic Forum, The World Bank have all pointed to learning as a critical component to success. Established employees often talk about what they have learned from the importance of hands-on experience working on projects. Increasingly, organizations are looking to understand the ingredients necessary to establish lessons learned strategies. Such an emphasis is indicative of the pressure for using learning as a pre-condition to taking on increasingly complex missions. It is also an indicator of the concern leaders have regarding the danger of failures and loss of competitive strengths based on the inability to learn and unlearn.

Successful knowledge-intensive organizations have become increasingly innovative in designing learning programs. This includes the use of benchmarking activities to look outside their own borders for the necessary knowledge. The future of work will become more dependent on robust learning and looking for ways to both provide motivation through growth mindsets (Carol Dweck), and offer their employees ways to continuously learn in order to respond to workplace innovations and change. A major aspect of knowledge will be helping leaders design living learning systems that include knowledge transfer, hands-on work assignments, mentoring, certifications, and skill building.

Support and Advocate for Knowledge Activities

A study done at the Xerox Co. in 1998 showed, not surprisingly, that those executives who used the word “knowledge” in their talks and documents, were 40% percent more likely than their peers to propose actions that would help knowledge be developed, retained, and transferred within the firm.

Often putting a word or phrase into conversations within the organization is enough to propel suggested actions—especially if the word is clearly understood.

Needless to say, if one has the chance to direct resources for knowledge projects that have a fair chance for success one should jump at the chance to do so. In addition to being an advocate for knowledge at senior levels of larger firms, one of the most useful and valued actions of Chief Knowledge Officer, is to defend the budgets for knowledge activities and advocate for incorporating knowledge perspectives during strategy discussions. Many would say that is the single most important thing they do.

Another very important activity is arguing strongly for judging the knowledge skills of candidates in evaluating and hiring decisions. For years, McKinsey would ask potential employees seemingly silly questions during on the spot at interviews (i.e. a famous example, “How many barbers are there in Chicago?”). But, they have abandoned this method and are much more likely to ask about what books or ideas influenced the candidate, how do they keep up with important events, and other questions much more reflective of a person’s intellectual

curiosity and drive. The rapid advance of AI will make questions like these much more salient in the very near future.

Knowledge, however defined, is still a new subject as far as rigorous study is concerned and is barely taught in business schools in the United States. Therefore, leaders must make the case for knowledge in ways that one does not have to make a case for marketing or process improvement or most other organizational activities. This puts pressure on leaders who want to contribute to their organization through knowledge efforts and involves persuasive skills not always considered in business classes. Yet, promoting knowledge is doing the right thing for your organization and that is the important message we wish to convey.

Dweck, Carol. 2012. *Mindset: Changing The Way You think To Fulfil Your Potential* 6th Edition, Robinson.